

WHAT IS CLAIMED IS:

1. A method of avoiding a band interference wave which is produced in a receiver when a reception frequency used for radio communication is converted into a fixed
5 intermediate frequency by using an oscillation frequency of a local signal oscillator, wherein when a frequency of a reception signal is on a low-frequency side in a reception frequency band, channel setting and route switching control are so performed as to make the
10 reception signal pass through a low-pass filter.

2. A method of avoiding a band interference wave which is produced in a receiver when a reception frequency used for radio communication is converted into a fixed intermediate frequency by using an oscillation frequency
15 of a local signal oscillator, comprising the steps of setting bandwidths of a plurality of bandpass filters for dividing a band of reception frequencies such that a frequency of a band interference wave produced by the oscillation frequency of the local signal oscillator falls
20 outside a pass band, and switching one of the plurality of bandpass filters to a bandpass filter corresponding to the frequency of the reception signal.

3. A method according to claim 2, wherein the frequency outside the pass band is a frequency obtained by
25 adding a frequency $1/2$ an intermediate frequency to a

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lowest frequency in each of the bands of the bandpass filters.

4. A circuit for avoiding a band interference wave which is produced in a receiver when a reception frequency used for radio communication is converted into a fixed intermediate frequency by using an oscillation frequency of a local signal oscillator, comprising bandpass filters for dividing the band of reception frequencies into a plurality of narrow bands, and a switch for switching said bandpass filters in accordance with a reception frequency of a reception signal corresponding to a set channel, wherein said plurality of bandpass filters respectively have frequency characteristics which set bandwidths such that a frequency of a band interference wave produced by the oscillation frequency of said local signal oscillator falls outside a pass band.

5. A circuit according to claim 4, wherein each of the bandwidths of said plurality of bandpass filters is set such that a frequency obtained by adding a frequency $1/2$ an intermediate frequency to a lowest frequency in each of the bands falls outside the pass band.

6. A circuit for avoiding a band interference wave which is produced in a receiver when a reception frequency used for radio communication is converted into a fixed intermediate frequency by using an oscillation frequency

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of a local signal oscillator, comprising:

a plurality of bandpass filters which divide a band of reception frequencies into a plurality of narrow bands, and respectively have bandwidths set such that a frequency
5 obtained by adding a frequency $1/2$ the intermediate frequency to a lowest reception frequency, in each band falls outside a pass band;

a switch for switching said bandpass filters in accordance with a reception frequency; and

10 a local signal oscillator for generating a fixed intermediate frequency by changing a generated oscillation frequency in accordance with a reception frequency.

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